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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/680,064	10/04/2000	Peter Coad	30013630-0005	8739

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EXAMINER
INGBERG, TODD D

ART UNIT	PAPER NUMBER
2124	

DATE MAILED: 09/26/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/680,064	COAD ET AL.	
	Examiner	Art Unit	
	Todd Ingberg	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 September 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 October 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3,5,7* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claims 1 - 43 have been examined.

Priority

1. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

Information Disclosure Statement

2. The information disclosure statement filed January 8, 2001, January 24, 2001, January 25, 2001 and September 10, 2001 have been considered.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation found in claims 2, 8, 14, 20, 26, 32 and 38 which are not clearly depicted in the drawings is underlined below:

Claim 2

The method of claim 1, wherein the determining step comprises the step of searching a comment field in the code for identification information.

This limitation must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. Examiner suggests either arguments explaining the limitation is shown or a new figure.

Examiner Interpretations

4. The following is intended to assist in distinguishing between prior art and the invention. comment -

Comment - *"Text embeded in a program for documentation puposes. Comments usually described what the program does, who wrote it, why it was changed, and so on. Most programming languages have a syntax for creating comments so that they can be recognized and ignored by the compiler or assembler. Also called remarks*".

[**Microsoft Dictionary**, page 101 Microsoft Press Computer Dictionary, Third Edition, published September 19, 1997].

Pattern - Dictionary of Object Technology, by Firesmith, page 322

1. *"any reusable architecture that experience has shown solves a problem."* [Firesmith]

2. *"any reusable template of objects with stereotypical responsibility and interactions*" [Coad]

Interpretation - In the broadest reasonable interpretation classes that make an object to solve a problem and can be reused.

Claim Rejections - 35 USC § 112

5. While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). The term "comment" in claim 2, 8, 14, 26, 32 and 38 is used by the claim to mean "name of the object," while the accepted meaning is stated above from the Microsoft Computer Dictionary.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 - 69 are rejected under 35 U.S.C. 102(b) based upon a public use or sale of the invention. Rational Rose version 4.0 released November 1996. The product is documented by the following manuals:

Using Rational Rose 4.0	**(RAT-UR)**
Round-Trip Engineering with Rational Rose/C++	**(RAT-C++)**
A Rational Approach to Software Development	Not Used
Extensibility Guide	Not Used
Extensibility Reference Manual	Not Used
UML BOOCH & OMT Quick Reference	Not Used

The manuals for the product are considered as single reference supporting a version of a product.

Claim 1

Rational Rose version 4.0 anticipates a method in a data processing system for simplifying a graphical representation of code, the code having a plurality of related elements, wherein a first of the plurality of related elements corresponds to a first participant in a pattern, and wherein a second of the plurality of related elements corresponds to a second participant in the pattern, the method comprising the steps of receiving a request to simplify a portion of the graphical representation of the code associated with the pattern; determining that the first and the second related elements are related to each other; displaying a representative symbol in lieu of the

graphical representation of the first and the second related elements responsive to determining that the first and the second related elements are related to each other; displaying a pattern collapsed tag in association with the representative symbol; displaying a pattern name in association with the representative symbol; displaying an identification for the first related element in association with the representative symbol; and displaying an identification for the second related element in association with the representative symbol.

Examiner's Response

The Rational Rose programming environment teaches the diagraming of classes and developing of Specifications and code generation (**RAT-UR,** Chapter 3 and page 34). The class model is a language neutral representation. Although, the claim limitations don't require the proof that Rational Rose supports code generation in many languages this should be researched prior to claiming this feature. The chapter 3 teaches the ability to create classes and the relationships (metadata) between them as well as component diagrams and state diagram etc.

Claim 2

The method of claim 1, wherein the determining step comprises the step of searching a comment field in the code for identification information. RAT-UR page 19 - 20 Browse Buttons.

Claim 3

The method of claim 1, wherein the determining step comprises the step of searching the code for a naming convention related to the first and second participant.

Interpreted as the name of an object upon instantiation which is based on inheritance (metadata) as per claim 1.

Claim 4

The method of claim 1, wherein the determining step comprises the step of searching the code for a pattern construct related to the first participant. As per claim 1.

Claim 5

The method of claim 1, further comprising the step of detecting a third related element in the code corresponding to a third participant in the pattern, wherein the representative symbol is further displayed in lieu of the graphical representation of the third related element. RAT-UR, page 40 sysmbol on toolbar for classes etc.

Claim 6

The method of claim 1 further comprising the steps of receiving a modification to the representative symbol; and editing a portion of the code reflecting the modification to the representative symbol. RAT-UR, pages 39 - 56 and last bullet on page 3.

Claim 7

A method in a data processing system for simplifying a graphical representation of code, the code having a first related element corresponding to a first participant in a pattern and a second related element corresponding to a second participant in the pattern, the method comprising the steps of receiving a request to simplify a portion of the graphical representation of the code associated with the pattern; detecting that the first and the second related elements are related to each other;

displaying a representative symbol in lieu of the graphical representation of the first and the second related elements responsive to determining that the first and the second related elements are related to each other; and displaying a pattern collapsed tag in association with the representative symbol. As per claim 1.

Claim 8

The method of claim 7, wherein the determining step comprises the step of searching the code for identification information in a comment field in the code. As per claim 2.

Claim 9

The method of claim 7, wherein the determining step comprises the step of searching the code for a naming convention related to the first participant. as per claim 3.

Claim 10

The method of claim 7, wherein the determining step comprises the step of searching the code for a pattern construct related to the first participant. As per claim 1.

Claim 11

The method of claim 7, wherein the code has a third related element corresponding to a third participant in a pattern, the method further comprising the step of determining that the third related element is related to the first and the second related element; and displaying the representative symbol in lieu of the graphical representation of the third related element responsive to detecting that the first, the second and the third related elements are related to each other. As per claims 5 and 6.

Claim 12

The method of claim 7 further comprising the steps of receiving a modification to the representative symbol; and editing a portion of the code reflecting the modification to the representative symbol. As per claim 6.

Claim 13

A method in a data processing system for simplifying a graphical representation of code, the code having a first related element corresponding to a first participant in a pattern and a second related element corresponding to a second participant in the pattern, the method comprising the steps of: determining that the first and the second related elements are related to each other; and displaying a representative symbol in lieu of the graphical representation of the first and the second related elements responsive to determining that the first and the second related elements are related to each other. As per claim 1.

Claim 14

The method of claim 13, wherein the determining step comprises the step of searching the code for identification information in a comment field in the code. As per claim 2.

Claim 15

The method of claim 13, wherein the determining step comprises the step of searching the code for a naming convention related to the first participant. As per claim 3.

Claim 16

The method of claim 13, wherein the determining step comprises the step of searching the code for a pattern construct related to the first participant. As per claim 4.

Claim 17

The method of claim 13, further comprising the step of detecting a third related element in the code corresponding to a third participant in the pattern, wherein the representative symbol is further displayed in lieu of the graphical representation of the third related element.
As per claim 5.

Claim 18

The method of claim 13 further comprising the steps of receiving a modification to the representative symbol; and editing a portion of the code reflecting the modification to the representative symbol. As per claim 6.

Claim 19

A computer-readable medium containing instructions for controlling a data processing system to perform a method, the data processing system having code having a plurality of related elements, wherein a first of the plurality of related elements corresponds to a first participant in a pattern, and a second of the plurality of related elements corresponds to a second participant in the pattern, the method comprising the steps of receiving a request to simplify a portion of the graphical representation of the code associated with the pattern; determining that the first and the second related elements are related to each other; displaying a representative symbol in lieu of the graphical representation of the first and the second related elements responsive to

determining that the first and the second related elements are related to each other; displaying a pattern collapsed tag in association with the representative symbol; displaying a pattern name in association with the representative symbol; displaying an identification for the first related element in association with the representative symbol; and displaying an identification for the second related element in association with the representative symbol. As per claim 1.

Claim 20

The computer-readable medium of claim 19, wherein the determining step comprises the step of searching the code for identification information in a comment field in the code. As per claim 2.

Claim 21

The computer-readable medium of claim 19, wherein the determining step comprises the step of searching the code for a naming convention related to the first participant. As per claim 3.

Claim 22

The computer-readable medium of claim 19, wherein the determining step comprises the step of searching the code for a pattern construct related to the first participant. As per claim 4.

Claim 23

The computer-readable medium of claim 19, wherein the method further comprises the step of detecting a third related element in the code corresponding to a third participant in the pattern, wherein the representative symbol is further displayed in lieu of the graphical representation of the third related element. As per claim 5.

Note: the number of relations dowes not impact the rejection. The ability to related more than 2 symbols is part of modeling. Multiple inheritance does not appear to be claimed so the technical limitations of a language are not being challenged.

Claim 24

The computer-readable medium of claim 19, wherein the method further comprises the steps of receiving a modification to the representative symbol; and editing a portion of the code reflecting the modification to the representative symbol. As per claim 6.

Claim 25

A computer-readable medium containing instructions for controlling a data processing system to perform a method, the data processing system having code having a first related element corresponding to a first participant in a pattern and a second related element corresponding to a second participant in the pattern, the method comprising the steps of receiving a request to simplify a portion of the graphical representation of the code associated with the pattern; detecting that the first and the second related elements are related to each other; displaying a representative symbol in lieu of the graphical representation of the first and the second related elements responsive to determining that the first and the second related elements are related to each other As per claim 1 ; and displaying a pattern collapsed tag in association with the representative symbol RAT-UR, page 4 left side of diagran shows the ability to collapse the differenct views.

Claim 26

The computer-readable medium of claim 25, wherein the determining step comprises the step of searching the code for identification information in a comment field in the code. As per claim 2.

Claim 27

The computer-readable medium of claim 25, wherein the determining step comprises the step of searching the code for a naming convention related to the first participant. As per claim 3.

Claim 28

The computer-readable medium of claim 25, wherein the determining step comprises the step of searching the code for a pattern construct related to the first participant. As per claim 4.

Claim 29

The computer-readable medium of claim 25, wherein the method further comprises the step of detecting a third related element in the code corresponding to a third participant in the pattern, wherein the representative symbol is further displayed in lieu of the graphical representation of the third related element. As per claim 5 in view of remarks in claim 23.

Claim 30

The computer-readable medium of claim 25, wherein the method further comprises the steps of receiving a modification to the representative symbol; and editing a portion of the code reflecting the modification to the representative symbol. As per claim 6.

Claim 31

A computer-readable medium containing instructions for controlling a data processing system to perform a method, the data processing system having code having a first related element and a

second related element, the method comprising the steps of detecting that the first and the second related elements are related to each other; and displaying a representative symbol in lieu of the graphical representation of the first and the second related elements responsive to determining that the first and the second related elements are related to each other. As per claim 1.

Claim 32

The computer-readable medium of claim 31, wherein the determining step comprises the step of searching the code for identification information in a comment field in the code. As per claim 2.

Claim 33

The computer-readable medium of claim 31, wherein the determining step comprises the step of searching the code for a naming convention related to the first participant. As per claim 3.

Claim 34

The computer-readable medium of claim 31, wherein the determining step comprises the step of searching the code for a pattern construct related to the first participant. As per claim 4.

Claim 35

The computer-readable medium of claim 31, wherein the method further comprises the step of detecting a third related element in the code corresponding to a third participant in the pattern, wherein the representative symbol is further displayed in lieu of the graphical representation of the third related element. As per claim 5.

Claim 36

The computer-readable medium of claim 31, wherein the method further comprises the steps of receiving a modification to the representative symbol; and editing a portion of the code reflecting the modification to the representative symbol. As per claim 6.

Claim 37

A data processing system comprising: a secondary storage device further comprising code having a first related element corresponding to a first participant in a pattern and a second related element corresponding to a second participant in the pattern; a memory device further comprising a program that receives a request to simplify a portion of a graphical representation of the code associated with the pattern, that determines whether the first and the second related elements are related to each other, that displays a representative symbol in lieu of the graphical representation of the first related element and the second related element responsive to the first and the second related elements being related to each other, and that displays a pattern collapsed tag in association with the representative symbol to reflect a collapsed state for the pattern; and a processor for running the program. As per claim 25.

Claim 38

The data processing system of claim 37, wherein when determining that the first and the second related elements are related to each other, the program searches the code for identification information in a comment field in the code. As per claim 2.

Claim 39

The data processing system of claim 37, wherein when determining that the first and the second related elements are related to each other, the program searches the code for a naming convention related to the first participant As per claim 3.

Claim 40

The data processing system of claim 37, wherein when determining that the first and the second related elements are related to each other, the program searches the code for a pattern construct related to the first participant. As per claim 4.

Claim 41

The data processing system of claim 37, wherein the program further detects a third related element in the code corresponding to a third participant in the pattern, wherein the representative symbol is further displayed in lieu of the graphical representation of the third related element. As per claim 5 in view of remarks on multiple relations not being a limit.

Claim 42

The data processing system of claim 37, wherein the program further: receives a modification to the representative symbol; and edits a portion of the code reflecting the modification to the representative symbol. As per claim 6.

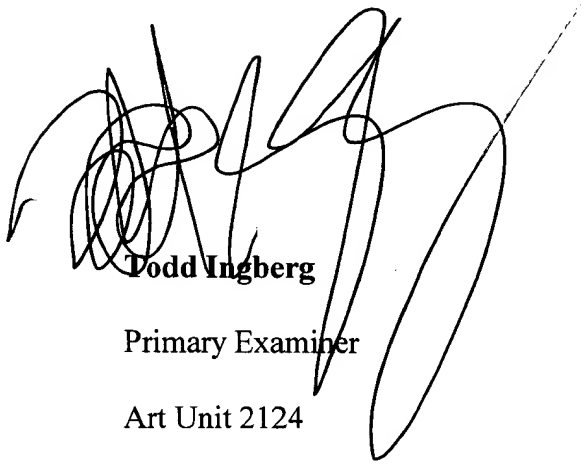
Claim 43

A system for simplifying a graphical representation of code, the code having a first related element and a second related element, the system comprising: means for determining that the first and the second related elements are related to each other; and means for displaying a representative symbol in lieu of the graphical representation of the first and the second related elements responsive to detecting that the to first and the second related elements are related to each other. As per claim 1.

Correspondence Information

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to **Todd Ingberg** whose telephone number is **(703) 305-9775.** The Examiner is working a Maxi-Flex schedule and can be reached Monday through Friday. If attempts to reach the examiner by telephone are unsuccessful, the **Examiner's Supervisor**, **Kakali Chaki** be reached at **(703)305-9662.** Any response to this office action should be mailed to: **Director of Patents and Trademarks Washington, D.C. 20231**, or **Hand-delivered** responses should be brought to **Crystal Park II, 2121 Crystal Drive Arlington, Virginia, (Receptionist located on the fourth floor),** or **faxed.** The following **fax numbers** apply:

Official	**(703) 872-9306**
Non Official/ Draft	**(703) 746 -7240**
After Final	**(703) 746 - 7238**



Todd Ingberg

Primary Examiner

Art Unit 2124

September 21, 2003